UTS Business School
Finance Discipline Group

25743 Advanced Corporate Valuation
Spring Semester 2023
Draft Group Report – CSL Group Limited (Ticker code: CSL)

Draft Cover Sheet

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This Draft Report is to be submitted by the Group Leader.

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☑ I/We confirm that I/we are also submitting the peer evaluation form with this report.

☑ I/We confirm that I/we have read, understood and followed the advice in the Subject Outline about assessment requirements.

☑ I/We understand that if this assignment is submitted after the due date it will not be accepted unless I/we have previously had an extension of time approved and have attached the written confirmation of this extension.

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Signature of Team Leader: ______________________ **Date:** 08/09/2023

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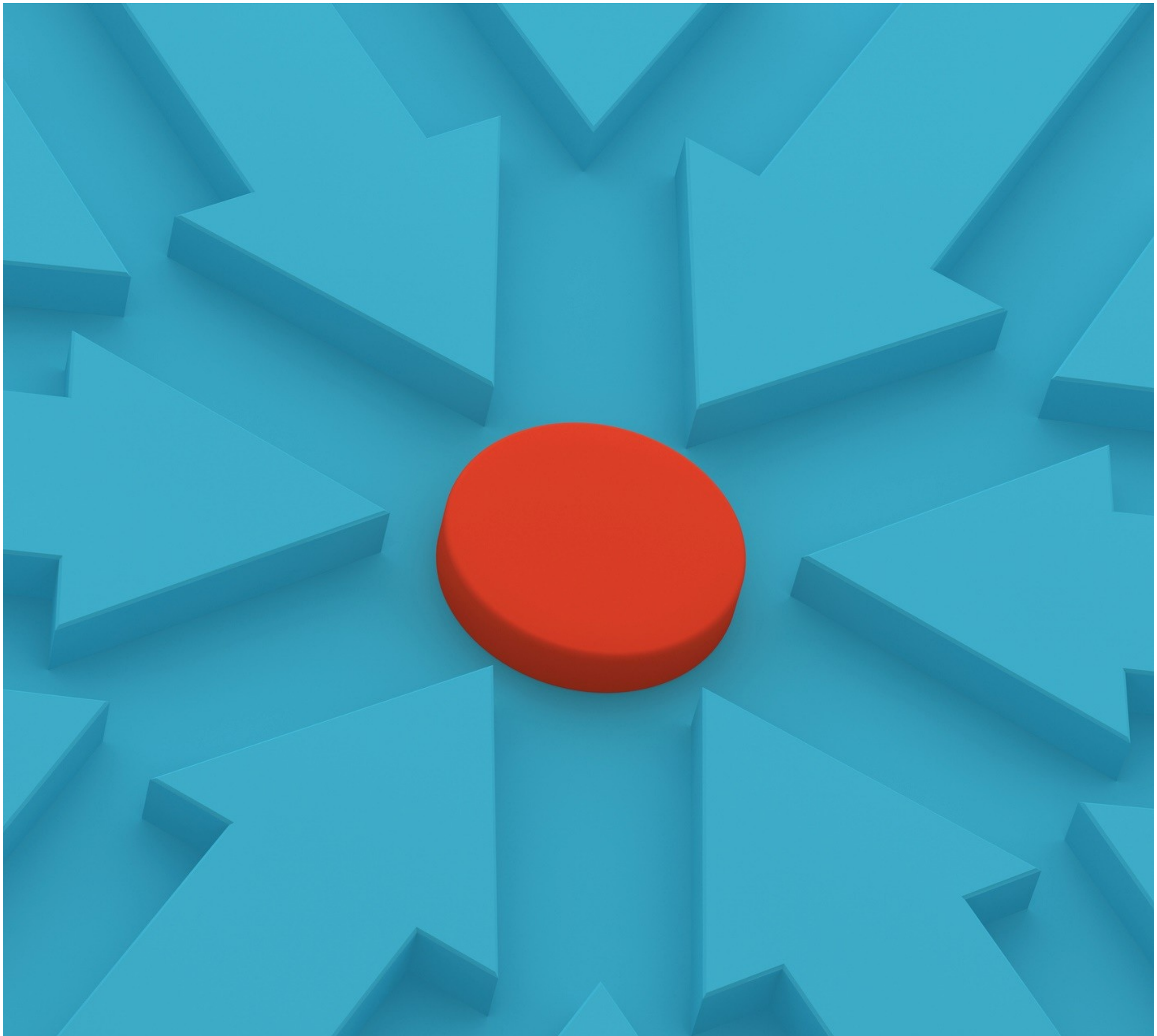
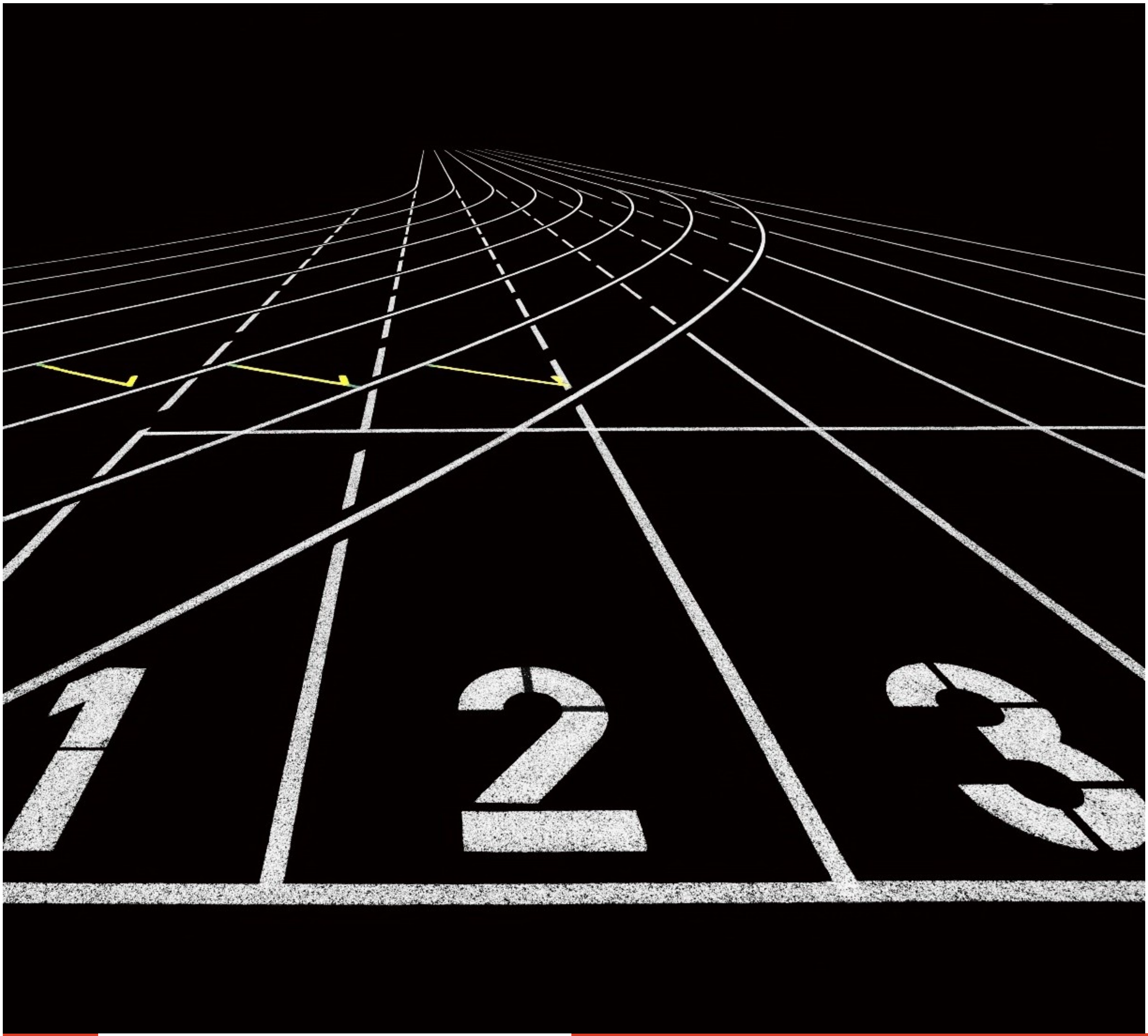


CSL

ANALYST REPORT

For Roosters Diversified Fund

ADVANCED CORPORATE VALUATION



RECOMMENDATION

We recommend a sell position to Rooster Diversified Fund for CSL and believe it to be overpriced right now. Relative valuation for the company gives a target price of 168.85 calculated on a weighted average EV/EBITDA of 16.83, which is lower than its last traded price of 268.3. The risk associated with CSL is high. We have performed multiple relative valuations on over 20 peer firms and regression to decide on this ratio for CSL. Both regression and comparing median values from distribution give the similar results for this company. We believe a weighted average captures all the drivers more accurately and represents the truer value.

CSL

Overview
CSL Limited is a is a global biopharmaceutical company that develops, manufactures, and markets pharmaceutical and diagnostic products, cell culture media, and human plasma fractions. The company is headquartered in Parkville, Victoria, Australia, and is listed on the Australian Securities Exchange (ASX) under the ticker symbol CSL. The company was founded on November 2, 1961, and is headquartered in Melbourne, Australia.

Business Segments
CSL consists of several businesses and products, including CSL Behring, CSL Plasma, CSL Seqirus, and CSL Vifor. These offerings are diverse and help ensure patients and people everywhere get the treatments they need. The company is always improving to help life get better. The CSL Behring segment provides plasma products, gene therapies, and recombinants. The CSL Seqirus segment includes predominantly influenza related products and provides pandemic services to governments. The CSL Vidor segment focuses on the distribution of products in the therapeutic areas of iron deficiency and nephrology.

Financials of Segments

	Tot Rev	% of Tot	Op Inc	Assets	Cap Ex
CSL Behring	13,811	70	5,639	51,882	1,292
CSL Seqirus	3,019	15	1,609	8,876	485
CSL Vifor	2,957	15	1,369	16,138	49

Values
CSL is committed to providing optimal treatment for patients with iron deficiency and heart failure. They are involved in educating communities about influenza vaccination and prevention. They also have a strong commitment to sustainability, with initiatives focused on the environment, social responsibility, and governance.

Brief overview of CSL's specialized products:

CSL Behring: This division of CSL focuses on biotherapies that are used to treat serious and rare conditions. Their products include treatments for:

- Immunodeficiency and Autoimmune Diseases
- Hereditary Bleeding Disorders
- Hereditary Angioedema
- Alpha 1 Antitrypsin Deficiency

CSL Plasma: This is one of the world's largest collectors of human plasma, which is used in the creation of life-saving therapies.

CSL Seqirus: This division is one of the largest influenza vaccine companies in the world. They provide both seasonal and pandemic response vaccines.

CSL Vifor: This division focuses on treatments for iron deficiency and offers patient support and assistance programs.

Other Areas:

Nephrology: They offer treatments related to kidney diseases.

Vaccines: Apart from influenza, they have a range of vaccines, including antivenoms and a Q fever vaccine.

Porter's Five Forces

Below is an analysis by CSL Limited using Porter's Five Forces:

• Competitive rivalry (Moderate):

CSL operates in a highly specialized industry with a limited number of direct competitors. However, there is competition from other global biotech and pharmaceutical companies such as Sanofi, Novartis, and Roche. These companies have considerable resources and capabilities. Although competition is fierce, the specialized nature of CSL's products and strong global presence give CSL a competitive edge.

• Vendor's bargaining power (Low):

Suppliers to the biotechnology industry mainly include suppliers of raw materials, equipment and services required for research, development, and production. CSL has a global supply chain and works with many different suppliers, reducing dependence on a single supplier. In addition, the highly specialized nature of the product means that suppliers have limited leverage over CSL. With its own plasma collection centers (CSL Plasma) and diversified operations, CSL has a degree of control over its supply chain, reducing the bargaining power of suppliers.

• Buyer's bargaining power (Low):

Buyers of CSL products include hospitals, clinics, and other healthcare facilities. Governments and health insurance companies also play an important role as they often fund the procurement. Although there are few alternatives to many of CSL's products, purchasing power is relatively strong due to government involvement and price-sensitive insurers. However, the specialized nature of CSL's products and their essential needs reduces the bargaining power of buyers to some extent.

• Threats of new entrants (Very Low):

The biotechnology industry faces significant barriers to entry due to significant capital requirements, extensive regulatory requirements and the need for specialized knowledge and expertise. This makes it difficult for new entrants to the market and competing with established players like CSL. Many of CSL's products, especially in the plasma-derived therapies segment, have limited direct substitutes, making the threat of substitutes relatively low. In addition, CSL has a strong global presence, strong product portfolio and good track record in research and development, which further deters new entrants.

• Threat of substitute products or services (Low):

The threat from substitutes to CSL's product is relatively low. Although there are alternative treatments for some conditions, many CSL products are specialized and have a limited number of direct substitutes. CSL has a strong position in the plasma-derived therapies market and a growing presence in vaccines (CSL Seqirus). Its diversified portfolio and global presence give it a competitive edge. In addition, the development of alternative products is challenging due to significant time, cost, and regulatory barriers.

CSL Limited, with its diversified operations spanning CSL Behring, CSL Plasma, CSL Seqirus, and CSL Vifor, is well-positioned in the biotechnology market. The company's strong foothold in plasma-derived therapies, combined with its global presence and century-long expertise, provides it with a competitive advantage. While there are inherent challenges in the biotech sector, CSL's strategic positioning reduces many of the risks associated with Porter’s 5 forces.

RELATIVE VALUATION

Selected Financials					
			Valuation (x)		**5 Yr Avg**
Company		**Fiscal**	**EV/**	**EV/**	**EV/**
Name	Ticker	Period	**EBIT**	**EBITDA**	**EBITDA**
CSL	CSL-AU	Jun-23	33.75x	26.30x	27.75
Takeda Pharmaceutical	4502-JP	6/30/2023	18.14x	8.76x	12.94
Novartis	NOVN-CH	6/30/2023	17.77x	11.08x	13.21
Amgen	AMGN-US	6/30/2023	18.57x	13.40x	12.46
AstraZeneca	AZN-GB	6/30/2023	36.82x	19.94x	24.19
GSK	GSK-GB	6/30/2023	12.29x	9.32x	9.87
Bayer	BAYN-DE	6/30/2023	12.89x	8.61x	13.05
AbbVie	ABBV-US	6/30/2023	14.66x	10.55x	11.2
Biogen	BIIB-US	6/30/2023	18.53x	14.59x	11.16
Regeneron Pharmaceuticals	REGN-US	6/30/2023	20.32x	18.65x	12.86
Bristol-Myers Squibb	BMY-US	6/30/2023	18.95x	8.83x	12.4
Moderna	MRNA-US	6/30/2023	92.22x	49.10x	
Gilead Sciences	GILD-US	6/30/2023	11.86x	9.59x	9.45
Vertex Pharmaceuticals	VRTX-US	6/30/2023	21.92x	21.07x	29.3
Eli Lilly	LLY-US	6/30/2023	71.96x	60.67x	24.99
Merck	MRK-DE	6/30/2023	16.98x	12.54x	14.68
Novo Nordisk B	NOVO.B-DK	6/30/2023	36.39x	33.29x	19.49

On September 1, 2023, CSL's share price stood at A$269.09. To gauge how this trading price measures up against its intrinsic value, we used the EV/EBITDA ratio from 16 similar companies we had earlier examined in our study. The EV/EBITDA metric is well-suited for assessing firms that are capital-heavy and take longer periods to recoup costs. The firms were selected based on many comparable. One of the major factors whilst selecting the firms was the industry/sector being similar to our target company CSL. Another factor we took into consideration was firm size and market capitalization. CSL's market cap is $130.3 Billion, and our peer companies range from 55 Billion (Moderna) to 800 Billion (Eli Lilly). The peer companies have also had similar EBIT and net margins which averaged around 20%-25%. The difference in financial years is already accounted for by FactSet. Since the average was greater than the median which implies positive skewness for the comparable companies, we used the median.

We sourced these ratios from FactSet, considering the 5-year average up data and the June 2023 data for the 16 selected comparable. All data sets showed a positive skew, with means exceeding their corresponding medians. To refine our results, we established the lower and upper bounds using the 25th and 75th percentiles around the median. The following tables provide a detailed overview of our observations.

5 Yr Average	
Average EV/EBITDA	15.42x
Median EV/EBITDA	12.94x
Lower EV/EBITDA	11.80x
Upper EV/EBITDA	17.08x
Sh Price 01/09/2023	269.09
EBITDA	4,742.00
Lower EV	55955.6
Upper EV	81017.07
Lower Equity	47,986.90
Upper Equiy	73,048.37
Lower Sh Price	103.75
Upper Sh Price	157.94

June 2023	
Average EV/EBITDA	19.37x
Median EV/EBITDA	12.97x
Lower EV/EBITDA	9.52x
Upper EV/EBITDA	20.22x
Sh Price 01/09/2023	269.09
EBITDA	5,595.8
Lower EV	53285.25
Upper EV	113155.97
Lower Equity	37,242.25
Upper Equity	97,112.97
Lower Sh Price	77.2
Upper Sh Price	201.31

For calculating price from the obtained EV/EBITDA ratio: -

EV/EBITDA = {Enterprise Value (Market Value of Operating Assets of the Company) = Total Value of Company = Market Value of Equity + Market Value of Total Debt – Cash and Marketable Securities}/EBITDA.

Now, Market Value of Equity per share =

$$\frac{\left(EV / EBITDA\right) \times EBITDA\left(firm\right) + Cash - Market\ \ Value\ \ of\ \ Debt}{No\ \ of\ \ Shares\ \ outstanding}$$

Therefore, the share price of CSL $\frac{= \left(12.97\right) \times 5595.8 + 2325.5 - 18368.5}{482.4}$ = 117.2

Similarly, the 5-year average comes out at 115.4.

As of September 1, 2023, with a trading price of AU$269.09 and based on our assessments using the 5-year average and data from June 2023, CSL appears to be valued higher than it should be. Our investment advice would be to sell.

In our subsequent analysis, we executed a multiple regression based on June 2023 data. We incorporated these determinants: Net Capex / EBITDA, DA / EBITDA, Return on Invested Capital, and the Effective Tax Rate. The reason we chose the above independent drivers are as follows,

- **Net Capex / EBITDA:**
  This ratio measures how much of the EBITDA is being reinvested back into the company in the form of capital expenditures. High levels of capital expenditures relative to EBITDA may indicate that the company is investing more for future growth. However, a very high ratio may also signal that the company is too capital-intensive, which might depress its valuation. This variable can capture how much of the operational profits are available to the company for other uses, like debt reduction or paying out dividends, thereby affecting its valuation.

- **DA / EBITDA (Depreciation & Amortization / EBITDA):**
  This variable helps to quantify how much of the EBITDA is lost to depreciation and amortization. If a significant portion of EBITDA goes into depreciation and amortization, the 'real' cash flows available for stakeholders might be lower, potentially affecting the company's valuation. Additionally, it can indicate the age and condition of a company's assets; older assets may result in higher depreciation and thus lower valuation. CSL has a lot of fixed and intangible assets which isn’t surprising considering its sector, thus depreciation and amortization are important factors to consider. Common size analysis shows it to be 7.5% of sales.

- **Return on Invested Capital (ROIC):**
  ROIC is an indicator of how efficiently a company uses its capital to generate profits. Companies with higher ROIC are often considered more efficient and potentially more profitable in the long term, which could result in a higher EV/EBITDA multiple. It essentially measures the bang-for-the-buck that the company is getting for its capital, a key factor that can be expected to influence how much investors are willing to pay for the company.

- **Effective Tax Rate:**
  Taxation has a direct impact on a company's bottom line, and therefore, its cash flows and valuation. Companies with effective tax strategies that result in a lower effective tax rate may have more cash flows available for stakeholders, potentially leading to higher valuation multiples. However, an unusually low tax rate might also trigger concerns about the sustainability of this rate and potential future tax liabilities.

In sum, these variables can help capture a multifaceted view of a company's operational efficiency, financial health, and future growth prospects, all of which are key considerations in valuation. Using them as independent drivers in a regression analysis for estimating EV/EBITDA would allow us to build a more comprehensive and nuanced valuation model.

The following tables provide a overview of our observations.

Regression June 2023	
EV/EBITDA	20.71x
Sh Price 01/09/2023	269.09
EBITDA	5595.8
EV	115871.0085
Equity	99827.92067
Sh Price	206.94

The regression equation is as follows,

$$EV / EBITDA = 25.27 + 15.34 * (Net\ \ Capex / EBITDA) - 14.80 * (DA / EBITDA) + 0.28 * (ROIC)$$
).

In our case,

$$EV / EBITDA = 25.27 + (15.34 * 0.2287) - (14.80 * 0.2208) + (0.28 * 9.6408) - (48.29 * \ 0.1573$$

, Market Value of Equity per share = $\frac{(EV / EBITDA) \times EBITDA(firm) + Cash - Market\ \ Value\ \ of\ \ Debt}{No\ \ of\ \ Shares\ \ outstanding}$ =
$\frac{(20.71) \times 5595.8 + 2325.5 - 18368.5}{482.4}$ = 206.94

The projected share value of $206.94 greatly differs from the present price of $269.09, as per the regression analysis using June 2023 data. This solidifies the view that CSL is overvalued.

Since from both the relative analysis we can get to a conclusion that CSL is currently overpriced and our recommendation for the stock is to sell and books profits for now. However, the price action will also depend on the greater macro-economic factors.

1. Simple Valuation data

Comps Tables - Named Competitors

Selected Financials

			Market Data (A$)					Financial (A$)			Valuation (x)		5 Yr Avg
Company Name	**Ticker**	**Fiscal Period**	**Price**	**Mkt Cap (M)**	**EV (M)**	**Shares Out (M)**	**Shares Out Diluted (M)**	**Sales (M)**	**EBIT (M)**	**EBITDA (M)**	**EV/ EBIT**	**EV/ EBITDA**	**EV/ EBITDA**
CSL	CSL-AU	06/2023	269.09	130,297.9	147,150.6	482.4	483.9	19,585.3	4,360.4	5,595.8	33.75x	26.30x	27.7
Takeda Pharmaceutical	4502-JP	06/30/2023	47.83	78,177.2	124,278.4	1,582.3	1,565.0	44,500.7	6,851.3	14,181.6	18.14x	8.76x	12.9
Novartis	NOVN-CH	06/30/2023	156.52	316,426.9	341,275.2	2,277.5	2,095.0	76,932.2	19,207.7	30,803.7	17.77x	11.08x	13.2
Amgen	AMGN-US	06/30/2023	397.60	214,882.6	255,549.6	534.9	537.0	39,163.1	13,760.5	19,070.9	18.57x	13.40x	12.4
AstraZeneca	AZN-GB	06/30/2023	209.14	325,545.5	361,725.5	1,549.9	1,560.0	66,105.6	9,823.7	18,142.1	36.82x	19.94x	24.1
GSK	GSK-GB	06/30/2023	27.12	112,042.5	141,900.4	4,095.0	4,093.0	52,453.2	11,549.6	15,224.2	12.29x	9.32x	9.8
Bayer	BAYN-DE	06/30/2023	85.15	83,654.4	155,313.3	982.4	982.4	75,721.5	12,045.1	18,045.1	12.89x	8.61x	13.0
AbbVie	ABBV-US	06/30/2023	229.54	410,372.7	489,085.0	1,765.0	1,771.0	83,287.3	33,362.2	46,377.9	14.66x	10.55x	11.
Biogen	BIIB-US	06/30/2023	413.80	60,919.0	60,145.2	144.8	145.5	14,076.9	3,246.3	4,123.6	18.53x	14.59x	11.1
Regeneron Pharmaceuticals	REGN-US	06/30/2023	1,288.05	150,544.3	133,657.1	106.7	113.9	18,837.2	6,578.0	7,165.7	20.32x	18.65x	12.8
Bristol-Myers Squibb	BMY-US	06/30/2023	96.06	204,203.5	246,913.7	2,089.1	2,102.0	67,177.8	13,032.1	27,959.7	18.95x	8.83x	12.
Moderna	MRNA-US	06/30/2023	174.34	69,225.0	56,350.2	380.6	381.0	15,687.3	611.0	1,147.7	92.22x	49.10x	
Gilead Sciences	GILD-US	06/30/2023	118.72	151,089.5	176,922.9	1,246.0	1,258.0	40,465.5	14,920.1	18,449.5	11.86x	9.59x	9.4
Vertex Pharmaceuticals	VRTX-US	06/30/2023	543.79	143,421.0	125,180.0	258.1	260.4	13,911.3	5,710.0	5,940.9	21.92x	21.07x	29.
Eli Lilly	LLY-US	06/30/2023	862.87	820,323.4	843,140.2	949.3	902.7	43,879.6	11,717.6	13,897.8	71.96x	60.67x	24.9
Merck	MRK-DE	06/30/2023	279.21	121,895.6	139,239.4	129.2	434.8	34,291.8	8,199.5	11,101.6	16.98x	12.54x	14.6
Novo Nordisk B	NOVO.B-DK	06/30/2023	292.24	653,169.7	650,915.4	1,717.6	2,251.3	42,047.7	17,889.5	19,554.4	36.39x	33.29x	19.4
										Average	27.52x	19.37x	15.416667
										Median	18.55x	12.97x	12.9
										Skewness	2.199948166	1.90354961	1.322769
											25th percentil	9.5223715	11.8
											75th percentil	20.2216055	17.08

2. Advanced Valuation Data

Company Name	EV/EBITDA	Net Capex/EBITDA	DA/EBITDA	ROIC (%)	Effective Tax Rat
CSL	26.182	0.2287	0.2208	9.6408	0.1573
Takeda Pharmaceutical	8.6877	0.0968	0.5169	2.7539	0.1465
Bristol-Myers Squibb	8.7236	-0.4738	0.5339	11.4995	0.0828
Moderna	48.8096	0.2163	0.4676	6.594	-0.4756
Gilead Sciences	9.4621	-0.1441	0.1913	12.4946	0.2597
Vertex Pharmaceuticals	20.8235	0.0086	0.0389	23.1913	0.2186
argenx	19.6916	0.0033	-0.2376	-14.0344	0.1003
Eli Lilly	60.6334	0.155	0.1569	24.7718	0.1075
Merck	12.6071	0.3114	0.2614	8.6027	0.2139
Novo Nordisk B	33.4149	0.1523	0.0851	64.4923	0.1289
Novartis	10.9118	-0.2466	0.3764	9.7032	0.2479
GSK	9.1492	0.0282	0.2414	16.949	0.1151
AstraZeneca	19.8815	-0.1656	0.4585	10.0922	-0.0255
Amgen	13.318	-0.1915	0.2785	15.3027	0.1323
Bayer	8.5759	-0.0636	0.3325	1.936	0.392
AbbVie	10.4744	-0.2568	0.2806	11.9792	0.1682
Regeneron Pharmaceutica	18.731	0.2778	0.082	17.1587	0.0998
Biogen	14.372	-0.1028	0.2127	13.4985	0.1461

3. Regression Analysis for the June 2023 data

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.7539932
R Square	0.5685057
Adjusted R Square	0.4246743
Standard Error	11.336463
Observations	17

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	4	2031.871	507.9677587	3.952583	0.02847
Residual	12	1542.185	128.5153853		
Total	16	3574.056			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*Lower 95.0%*	*Upper 95.0%*
Intercept	25.269652	6.348784	3.980234956	0.001826	11.4368	39.1024633	11.4368398	39.10246
Net Capex/EBITDA	15.539659	15.36344	1.011469853	0.331752	-17.9344	49.0137252	-17.934407	49.01373
DA/EBITDA	-14.803033	16.34571	-0.905621867	0.382959	-50.4173	20.8112105	-50.417276	20.81121
ROIC (%)	0.2849793	0.184333	1.546000168	0.148059	-0.11665	0.68660693	-0.1166484	0.686607
Effective Tax Rate	-48.288043	17.55569	-2.750563363	0.017584	-86.5386	-10.037476	-86.538609	-10.0375

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